

**IN THE CLAIMS**

Claims 1-9. (Canceled)

10. (New) A method of manufacturing a semiconductor device comprising:  
growing spherical or hemispherical grains on a semiconductor film;  
diffusing an impurity product to the grains;  
removing the impurity product from the semiconductor film using a first cleaner  
selected from the group consisting of: 1) hot water, 2) a mixed solution of water,  
hydrochloric acid and hydrogen peroxide, and 3) a mixed solution of sulfuric acid and  
hydrogen peroxide, wherein the mixed solution of water, hydrochloric acid and hydrogen  
peroxide has a ratio of 1:1:8; and

removing native oxide on the semiconductor film using a second cleaner.

11. (New) A method of manufacturing a semiconductor device comprising:  
growing spherical or hemispherical grains on a semiconductor film;  
diffusing an impurity product to the grains;  
removing the impurity product from the semiconductor film using a first cleaner  
selected from the group consisting of: 1) hot water, 2) a mixed solution of water,  
hydrochloric acid and hydrogen peroxide, and 3) a mixed solution of sulfuric acid and  
hydrogen peroxide, wherein the mixed solution of sulfuric acid and hydrogen peroxide has a  
ratio of 1:5; and

removing native oxide on the semiconductor film using a second cleaner.